

# **PREVENTING CHILDHOOD OBESITY - part 4**

## **Limiting Juice Intake**

### **Training Curriculum: Survey Question 4**

#### **OBJECTIVES**

1. Staff will be able to identify the health problems associated with excess juice consumption.
2. Staff will be able to advise participants on recommended amounts of juice and sweetened beverages.
3. Staff will be able to provide participants with tips for limiting intake of juice and sweetened beverages and increasing intake of water.

#### **MATERIALS**

Staff Reference Sheet:

Children and Juice

Participant Handout:

Hey Mom, I'm Thirsty

Nutrition Education Module for Survey Question 4

Nutrition Education Plan Survey

#### **BACKGROUND**

*As an ice breaker, place four containers before the group labeled as follows: 16 ounces milk, 16 ounces unsweetened WIC juice, 16 ounces water, and 16 ounces tea. Ask them to rate each one as "healthy" or "not healthy" if they were part of a child's daily diet and to justify their rating.*

*After the exercise, review the following points with staff as necessary:*

According to research, 16 ounces of milk and water each day would be "healthy," 16 ounces of juice or tea, "not healthy."

Rationale:

In one study, children who drank more than 12 ounces of pure juice each day were more likely to be short in stature or overweight.

Although their intake of other foods decreased to compensate for the juice, it wasn't enough to offset the increased calories the juice provided. This may account for the higher weight gain.

Excess juice consumption also decreased the percentage of calories coming from fat, which may explain lower height for age on the growth grid. Although the Dietary Guidelines recommend that *adults and older children* restrict fat to 30% of the calories, fat should gradually be reduced to this level by the time the child is 5 years old. Infants and pre-school children need fat for normal growth and development.

Although WIC juices contain vitamin C, potassium and other nutrients, it is also similar in calories to soda and other sugar-sweetened drinks. When consumed in excessive amounts, it can mimic an “empty calorie food.”

*Divide into groups of 4-6. Hand out the green Nutritional Risk Assessment form and have each group identify risks which excess juice consumption may impact and why. Also have them identify any other health problems that are not addressed on the assessment sheet. Then have the groups share their results. Mention the following risks/rationale if not covered in the discussion.*

- Overweight (DH)  
Rationale explained above.
- Short stature (DM)  
Rationale explained above.
- Inadequate diet (CJ)  
Juice can displace other important foods in the diet, such as milk, which are also needed for proper growth.
- Dental Decay (FL)  
Juice/sweet beverages in the bottle promote dental decay (nursing bottle mouth).
- Lead poisoning (FE)  
It's worth mentioning to participants that imported juice in cans may contain lead seams. The growing ethnic populations may like to buy foreign brands with which they are familiar.
- Malabsorption or diarrhea  
This does not qualify as a WIC nutritional risk but complaints of diarrhea may be due to juice. Naturally occurring sugars in fruit juice (fructose and sorbitol) are poorly absorbed. Therefore, large quantities of juice can lead to chronic GI distress. Pear, apple and prune juices are especially high in fructose and sorbitol.

### **How much juice and sweet drinks should children drink?**

Limit sweet drinks to occasional treats. Limit juice to 4-6 ounces per day.

Many children drink much more juice and/or sweetened beverages. In addition to the 4-6 ounces of juice, parents should offer their children 3 servings of milk each day and water.

**What could parents do to limit juice and sweet drinks?**

Offer water or milk instead! The parent controls what the child is offered.

**What other things could parents do to make water more attractive or easy for their children?**

- Keep a colorful container of water in the refrigerator, especially one with a “child appeal” design. (Show example)
- Serve water in the child’s favorite cup with a straw or in a sports bottle. (Show examples)
- Parents can set the example by having a drink of water with their child.

*Review the following points with staff regarding food package issues:*

- The model food packages in Quick WIC provide 4 (46 ounce) cans or 4 (12 ounces) frozen juice, but the maximum allowed is 6 cans.

*Have staff calculate how much that averages for a child per day.*

- About six ounces per day of juice for the model food package and 9 ounces for the maximum package. Six ounces will provide enough daily vitamin C for children and adults.
- Along with saying that they get too much milk in their WIC food package, some parents may complain that they don’t get enough juice. If so, find out why. Are other family members also drinking it? Is the child drinking too much juice in comparison to milk?
- Counsel accordingly, giving suggestions on increasing water and milk intake if indicated.

*Review the following points with staff regarding diet assessment:*

- Some children fulfill their requirement for fruit servings through juice.
- Since juice lacks dietary fiber, and excess amounts can displace other nutrient rich foods, staff may use discretion when assessing dietary inadequacy.
- An “all juice” intake may qualify for risk code CJ as long as staff document the reason.

## REVIEW OF NUTRITION EDUCATION MODULE AND HANDOUT

*Hand out the module for question 4 and the flyer and have staff read through them.*

This module is designed to encourage mothers to limit juice and sweetened drinks. Survey question 5 assesses the mother's opinions on juice and sweet drinks.

**How likely is it that parents would choose answer 'e' for question 4 on the survey?**

The module assumes that few people will!

**What would you do in the unlikely event that someone does choose answer e?**

*Allow staff to respond and provide the following suggestions:*

Regardless of what answer the person chooses, find out *why* she chose it. If someone does choose answer e, perhaps she is saying this because she feels out of control of her child's food choices and so therefore has to justify her answer. Depending on how parents answer, you may have to work with them individually rather than follow the format in the module.

When you ask her why she feels juice should be restricted (or not restricted), reinforce these benefits. The flyer focuses on growth, diarrhea and obesity as three health consequences of excess juice and soda.

The next question directs staff to assess the child's own drink preferences.

**What are popular drinks among children? Based on your experiences with food frequencies and observations in clinics, what are mothers giving to their children?**

Mothers may give the kinds of beverages their children ask for without thinking too much about nutrition. Children naturally prefer sweet tastes, and will ask for them. The next question on the module is designed to assess what kind of parenting skills the mother uses in dealing with her child's requests for sweetened drinks.

Listen to the mother and then reinforce the message that *the parent* controls what is offered. That message has been mentioned in the other modules but it bears repeating.

**The flyer gives some suggestions for getting children to drink more water. What other ideas would you suggest?**

*Allow staff to respond and suggest that they add any ideas to their module.*

The next question is optional. If you already know the child has been weaned you will obviously want to skip it. If the child is still on the bottle, provide weaning information.

There will probably be little positive response to the last question but it is worth mentioning.

There have been several outbreaks of food poisoning due to unpasteurized juice and cider and some children have died. Infants and children are more susceptible to food poisoning than adults.

Also, some agencies have immigrants on WIC. They may want to buy products that they are familiar with. Juice in imported cans may have high levels of lead.

Conclude the contact by asking which ideas she will try.

## **PRACTICE SESSION - USING THE NUTRITION EDUCATION MODULE**

Role-play the module in front of the group. Ask for volunteers to play the part of a typical caregiver while you play the more difficult part of the nutrition aide. (You may want to ask for some volunteers prior to the training session.)

For each role-play, the caregiver should have a different problem or situation. Some suggestions include:

"My kid won't drink water."

"I don't drink water."

Be prepared to make some mistakes so staff realize that the role playing is a learning experience not a "command performance." After each role-play, get feedback from staff by asking the following questions:

What part of the contact did you especially like?

What could be done to improve the contact?

After doing several role-plays, divide the group into pairs and practice some role-plays on their own. If they are reluctant to do individual role-plays, do a 'group role play' by dividing the group in half. Assign each 'half' to play the role of nutritionist or the parents. Keep the discussion going between the two teams by asking questions such as the following:

You are the nutritionist who is about to discuss juice consumption. How would you get started? (Tell them to refer to the module.) (Elicit response from the 'nutritionist group.')

Then ask the participant group, "What might a participant say in return?" (Elicit response from participant group.)

Then again ask the 'nutritionist' group to respond to what the 'participant' group said. Continue working with the group, trying to get them accustomed to using the module.

## Limiting Juice and Sweet Drinks: Question 4

On the survey you mentioned that children should be/should not be limited on the amount of soda and sweet drinks they get.

**Why do feel too much soda or sweet drinks would be a health concern?**

**Or... why do you feel that these drinks should not be limited?**

*Allow mother to share her views. Emphasize that both juice and sweetened beverages can cause problems if taken in excess, pointing out the tips in the beginning of the flyer.*

**What does your child prefer to drink?**

*What does the mother mention first? Water, milk, juice, soda, tea?*

Many children prefer sweet tastes. Many will choose soda and juice over milk and water. However, it is best to limit juice, even WIC juice, to about 4-6 ounces a day and save other sweet drinks for an occasional treat.

**What do you do when your child asks for soda or tea?**

*Allow mother to respond and then share ideas in the flyer.*

**How much water does your child drink?**

*If the child does not drink water, review the parenting suggestions and the suggestions for getting the child to drink more.*

**Does your child still drink from a bottle?**

*If yes, review the guidelines in the pamphlet.*

**Do you buy any juice imported from another country?**

*If yes, review the guidelines in the pamphlet.*

**What ideas will you try?**

## CHILDREN AND JUICE

### WIC Staff Reference Sheet

Over the past two decades, an increasing variety of flavored beverages have come on the market and children love them. Since 1978, the consumption of sodas, juices and juice drinks has almost tripled and the grocery aisles are laden with all kinds of natural and artificial flavors. Some of the drinks, such as 100% pure juices, seem healthy, providing a pleasant, affordable alternative to water. Yet, research shows that drinking too many sweet beverages, including WIC juices, can lead to the following health risks:

- overweight (risk code DH)
- too short for age (risk code DM)
- dental decay (risk code FL)
- inadequate diet (risk code CJ)
- recurrent diarrhea or malabsorption

Juices don't pose a problem if consumed in the right proportion along with adequate amounts of milk and water. Do any of the WIC children you serve have a "drinking problem"? When reviewing the food list with participants, WIC staff should alert parents about the importance of moderation when offering juice and other sweetened beverages to their children. The following information explains why.

#### How Can Juice Become "Unhealthy"?

In one study, children who drank more than 1½ cups of juice each day were 3 times more likely to be short in stature (height for age <20%) or obese (BMI >90% for age/sex). Although their intake of other foods decreased to compensate for the juice, it wasn't enough to offset the increased calories the juice provided which may account for the higher weight gain. Excess juice can also displace other nutrient rich foods in the diet and decrease the percentage of calories coming from fat which may explain the decrease in linear growth among these children.

Studies have shown that naturally occurring sugars in juice (fructose and sorbitol) can cause malabsorption or diarrhea. The fructose in juice is absorbed poorly and sorbitol not at all. Large quantities of juice therefore can lead to chronic gastrointestinal distress in some children. In 1991, the AAP Committee on Nutrition cautioned that excessive use of fruit juice, especially pear, apple and prune, can result in chronic diarrhea, abdominal pain or bloating.

The AAP has twice issued a statement discouraging the use of juice from a bottle because it has been shown to promote the development of nursing bottle decay. Also, children learn to prefer sweet liquids from infancy, thus establishing a lifetime habit.

#### Counseling Advice

Two to four ounces of juice per day for infants and four to six ounces per day for pre-schoolers is considered adequate. To limit juice consumption, WIC staff can provide parents with the following information:

#### Infants

WIC begins providing juice at 6 months of age. Advise parents to begin cup feedings at this time. Infants should be fed juice from a cup for several reasons:

- To avoid development of nursing bottle decay.
- To avoid consumption of excess juice.  
It is easier for babies to drink juice from a bottle. Excessive amounts of juice will displace breastmilk or formula and in some cases create gastrointestinal problems.
- Even young infants can drink small amounts of liquids from a cup. Two ounces of juice offered from a cup each day will help develop swallowing skills and perhaps make it easier to wean later on.
- Cans of imported juice may have lead seams. Infants should not be given imported juice in cans.

## **Children**

In addition to juice, provide 3 servings of milk daily.

To increase water consumption, suggest the following tips:

- Dilute 100% juices with water.
- Substitute juice mixed with seltzer water for soda.
- Serve water in a child's favorite cup with a straw.
- Add a hint of lemon or lime to the water.
- Keep a container of water readily available in the refrigerator.
- Set the example. Have a drink of water with your child.

### **Food Package Issues**

The model food packages for children and women provide about six ounces of juice per day and the maximum package, nine ounces. If a client tells you her child needs more juice, find out why she is running out. Then use the information above to counsel accordingly. Perhaps the advice you give will convince participants to use WIC juice and other beverages more wisely.

### **Dietary Assessment Issues**

Consumption of fruit juice helps fulfill the recommendation to eat more fruits and vegetables. However, fruit juice accounts for about 50% of the fruit servings consumed by children and 1/3 of the fruits and vegetables consumed by preschoolers. Fruit juice lacks dietary fiber and excessive amounts can displace other nutrient rich foods such as milk, increase calorie intake and decrease the percentage of calories from fat which is needed for growth. Therefore, staff may use their discretion when assessing dietary inadequacy as long as they document the reason on the food frequency form.



# “Hey Mom, I’m Thirsty”



How much fruit juice does your child get each day? You already know that too much soda, tea and sweet drinks aren’t good, but what about pure, natural fruit juice? Too much of a good thing is not good for your child! Both juice and sweet drinks can spoil your child’s appetite for other foods needed for proper growth. They can also cause diarrhea or make your child overweight.

## ♥ How much juice should my child drink?

Limit pure juice to 4 to 6 ounces daily. Limit sweet drinks to occasional treats.

## ♥ What can I give my child instead?

Give your child three servings of milk daily.

Children are more likely to drink milk with meals.

Offer water instead of juice between meals.

## ♥ What if my child keeps asking for more juice?

Offer a choice of milk or water instead.

If both are refused, firmly tell your child that these are the choices.

You control what your child is offered. Children will drink water if they get thirsty.

## ♥ How can I get my child to drink water?

Serve water in a sports bottle or in your child’s favorite cup with a straw.

Keep a colorful container of water in the refrigerator.

Offer water flavored with a bit of fresh lemon or lime.

Dilute juice with water.

Mix juice with unsweetened seltzer water in place of soda.

Set the example. Drink water with your child.

## ♥ Some health and safety tips

Drinking juice, milk or sweet drinks from a bottle can cause your child’s front teeth to decay.

Use a cup to prevent serious dental problems.

Cans of imported juice may contain lead. Unpasteurized juice can make your child sick.

Buy pasteurized juice which is packaged in the U.S.



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